

In the claims:

Please amend Claim 1 as follows:

-- 1. (Amended) A device, comprising an array of light-filtering channels having an input surface from which said light-filtering channels receive input light and an output surface from which said light-filtering channels export output light, wherein each light-filtering channel comprises:

a light-conducting channel formed of a transparent dielectric material to direct light from said input surface to said output surface, said light-conducting channel having a first surface which is substantially reflective and a second surface opposing said first surface, said first and second surfaces substantially parallel to said light-conducting channel; and

at least two optical filters sequentially formed on said second surface along said light-conducting channel to reflect said input light between said first and second surfaces so that said input light is sequentially reflected and filtered by said optical filters to produce said output light, wherein each optical filter includes at least one

metal layer and an electro-optical dielectric layer contacting with each other to form a metal-dielectric interface which generates a surface plasmon wave in response to a p-polarized input light beam to transmit light at a selected wavelength within a bandwidth according to a control voltage from said metal layer to said dielectric layer and reflects light of other wavelengths; and

at least two thin-film transistors respectively formed on said optical filters to provide said control voltage to control a refractive index of said dielectric layer and thereby said selected wavelength to change a color and a grey scale of said output light. --